

REMARKS

Favorable reconsideration of this application in view of the above amendments and following remarks is respectfully requested.

With respect to the Requirement for Information on page 2 of the outstanding Office Action, Applicants attach herewith, a copy of the published Master's thesis of Andreas Schmid from Reutlingen University entitled Hybrid Solar Cells Device Preparation and Characterization. As discussed on page 3 of the outstanding Office Action, the fee and certification requirements of 37 CFR §1.97 are waived, and therefore are not included herewith.

Claims 1-2, 4, 6-18, 20-34 are pending in this application. Claims 25-34 are withdrawn from consideration. By this amendment, Claims 1 and 20-24 are amended; and Claim 19 is canceled and no claims are added herewith. It is respectfully submitted that no new matter is added by this amendment.

In the outstanding Office Action, Claim 1, 2, 4, 6-9 and 19-24 were rejected under 35 U.S.C. § 102(b) as anticipated by Usami; and Claims 9-18 were rejected under 35 U.S.C. § 103(a) as unpatentable over Usami in view of EP 1271,580 to Chone.

It is respectfully submitted that the applied art does not teach or suggest a film including at least two layers, each layer having a first kind of particles of one average diameter or length and one layer of the at least two layers having additionally a second kind of particles, the second kind of particles having a larger average diameter or length than the first kind of particles that are included in each of the at least two layers, as recited in Claim 1.

Instead, Usami discusses a dye-sensitized nano-crystalline photoelectrochemical cell, which includes a bilayer of TiO₂. The bilayer includes a small particle film and a large particle film. As best shown in Fig. 4 of Usami, the two types of TiO₂ particles used differ in

their diameter. Accordingly, Usami does not disclose at least two layers with one type of particle being present in all of the layers, and additionally having a second type of particle with a larger diameter or length in only one layer.

The exclusive use of one type of particles in the first layer and the one type of larger particles in the second layer, as discussed by Usami, leads to a strongly reduced absorption strength and, thus, a reduced overall efficiency. In contrast, according to one or more examples of the present invention, the mixture of at least two species of particles in one layer with the one species having the smaller diameter or length is also present in all other layers, allows for altering the scattering strength while keeping the adsorption strength at a substantially constant level. For example, please see Fig. 8 of the present invention.

As acknowledged on page 4 of the outstanding Office Action, Usami discusses the top layers having particles of one average diameter and the two bottom layers have a second kind of particle with a larger average diameter. However, Claim 1 recites in part, that the porous film includes at least two layers, each layer having a first kind of particle of one average diameter or length. Further, one layer of the at least two layers has additionally a second kind of particle, the second kind of particles having a larger average diameter or length. In Usami, none of the layers individually have two different sized particles. As such, the features of the claimed invention are not taught or suggested by the applied and therefore the applied art cannot provide at least the advantages discussed above.

Similar to Usami, Chone does not discuss a porous film having two layers and in each layer a first kind of particle of one average diameter or length and one layer of the at least two layer includes a second kind of particle, the second kind of particles having a larger average diameter or length. Instead, Chone discusses a single layer film of metal oxide semiconductor particles, wherein various types of particles are mixed. As discussed

throughout the specification of Chone a two-layer system is described but the particles size in both layers are similar. Please see [0031] to [0032] of Chone.

Accordingly, withdrawal of the rejection of the claims under 35 U.S.C. § 102 and §103 is respectfully requested.

Consequently, for the reasons discussed in detail above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below-listed telephone number.

Respectfully submitted,

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